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10/530,513	08/22/2005	Ralf Dunkel	CS8479/LeA 36187	9581

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BAYER CROPSCIENCE LP
Patent Department
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EXAMINER

STOCKTON, LAURA LYNNE

ART UNIT	PAPER NUMBER
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1626

MAIL DATE	DELIVERY MODE
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05/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,513

Applicant(s)

DUNKEL ET AL.

Examiner

Laura L. Stockton, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-25, 27 and 29-33 is/are rejected.
- 7) ☒ Claim(s) 26 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 18-33 are pending in the application.

Response to Amendment

The Declaration under 37 CFR 1.132 filed February 23, 2007 is insufficient to overcome the rejection of claims 18-25, 27 and 29-33 based upon obviousness-type double patenting and 35 USC 103 as set forth in the last Office action because, firstly, the Declaration identifies different compounds {i.e., Example 2, Example 4, Example 6, etc.} of the instant claimed invention which are being compared but in each instance {Table I (page 3), Table II (page 5), Table III (page 7) and Table IV (page 9)}, the same structure is displayed. For instance, in Table I on page 3 of the Declaration, Example 2 is identified as a compound according to the instant claimed invention but the structure shown corresponds to Example 9 found on page 41 of the instant specification. Therefore, it is

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unclear if the example numbers are correct for the data shown or if the structure of the compound of the instant claimed invention is correct for the data shown or if the data does not correspond to the example number nor the structure displayed. Secondly, the showing is not commensurate in scope with the instant claims. In re Greenfield, 197 U.S.P.Q. 227 (1978) and In re Lindner, 173 U.S.P.Q. 356 (1972). Also see M.P.E.P. 716.02(d).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed.

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Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 18-25, 29 and 31-33 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 22-33 and 35-37 of copending Application No. 10/502,994. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the compounds of the copending application and the compounds instantly claimed is that of a hydrogen versus a methyl group on the nitrogen of

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the carboxanilide group (secondary amines in the copending application versus the instant claimed tertiary amines). Compare Example 6 on page 41 of the instant application and Example 2 on page 32 of copending Application No. 10/502,994.

It is sufficient if a reference compound is so closely related to claimed compound that a chemist would find the difference an obvious variation; thus, claims are refused where the difference is primarily the one which exists between a secondary and a tertiary amine. Ex parte Bluestone, 135 USPQ 199 (1961).

One skilled in the art would thus be motivated to prepare tertiary amine products of the copending application to arrive at the instant claimed products with the expectation of obtaining additional beneficial products which would be useful for controlling undesired microorganisms.

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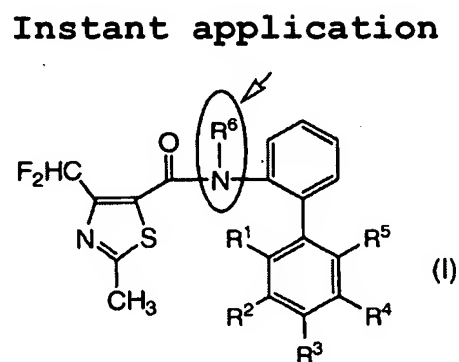
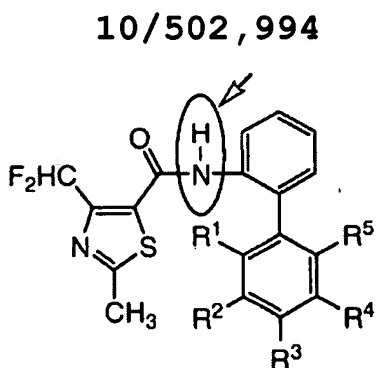
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

Applicant's arguments filed February 23, 2007 have been fully considered but they are not persuasive.

Applicant argues that: (1) the nitrogen atom at issue is an amide nitrogen and not an amine nitrogen as stated in the Office Action; (2) if the amide group is involved in an interaction with an biological receptor, modification of the group might be expected to affect such interaction; and (3) the Declaration filed under 37 C.F.R. 1.132 of Dr. Ulrike Wachendorff-Neumann showing enhanced activity for a compound in which the bridging amide nitrogen atom is N-substituted according to Applicant's invention compared to a corresponding unsubstituted compound of the copending application.

All of Applicant's arguments have been considered but have not been found persuasive. Applicant argues that the nitrogen atom at issue is an amide nitrogen and not an amine nitrogen as stated in the Office Action, as shown below.



In response, Applicant is correct that the nitrogen is an amide nitrogen, however, only the nitrogen atom, not its substituents, was being referred in the copending application. Further, Applicant has not successfully demonstrated that the amide group is involved in an interaction with an biological receptor, which modification of the group might affect such interaction. Additionally, the Declaration by Dr.

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Ulrike Wachendorff-Neumann was found insufficient for reasons stated above. The rejection is deemed proper and therefore, maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-25, 27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walter et al. {WO 02/059086} and Elbe et al. {CA 2,474,902}, each taken alone or in combination with each other and each in further combination with Kanji et al. {JP 08/176112}. A partial translation of the JP document

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was provided with the previous Office Action and will be referred to hereinafter.

Determination of the scope and content of the prior art (MPEP
§2141.01)

Applicant claims thiazole compounds. **Walter et al.** (pages 1, 2 and 8-16; and especially compound 4.19 on page 32; and compound 7.03 on page 39) and **Elbe et al.** (pages 1, 4 and 15-30; and especially Example 1 on page 31) teach thiazole compounds which are structurally similar to the instant claimed compounds.

Ascertainment of the difference between the prior art and the claims
(MPEP §2141.02)

The difference between the compounds of Walter et al. and the compounds instantly claimed is that the instant claimed compounds are generically described in Walter et al.

The difference between the compounds of Elbe et al. and the compounds instantly claimed is that of a hydrogen versus a methyl group on the nitrogen of the

carboxanilide group (secondary amines in Elbe et al. versus the instant claimed tertiary amines).

Further, Kanji et al. teach the interchangeability of the various substituents attached to the nitrogen of the carboxanilide group (see the definition of R1 in Kanji et al. in paragraph [0009]) in thiazole compounds that are useful as microbicidal agents.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

The indiscriminate selection of "some" among "many" is *prima facie* obvious, In re Lemin, 141 USPQ 814 (1964). The motivation to make the claimed compounds derives from the expectation that structurally similar compounds would possess similar activity (e.g., controlling undesired microorganisms).

Further, it is sufficient if a reference compound is so closely related to claimed compound that a chemist would find the difference an obvious variation; thus, claims are refused where the difference is

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primarily the one which exists between a secondary and a tertiary amine. Ex parte Bluestone, 135 USPQ 199 (1961).

One skilled in the art would thus be motivated to prepare products embraced by Walter et al. or prepare a tertiary amino of the compounds taught by Elbe et al., and especially in view of the teachings in Kanji et al., to arrive at the instant claimed products with the expectation of obtaining additional beneficial products which would be useful for controlling undesired microorganisms. Since Walter et al. and Elbe et al. teach thiazole compounds that are structurally similar to each other for controlling undesired microorganisms, the combination of the prior art would also teach the instant claimed invention. The instant claimed invention would have been suggested to one skilled in the art and therefore, the instant claimed invention would have been obvious to one skilled in the art.

Response to Arguments

Applicant's arguments filed February 23, 2007 have been fully considered but they are not persuasive.

Applicant argues that: (1) Walter et al. do not teach the particular combination of structural features that characterize Applicant's claimed invention; (2) Walter et al. do not show even one specific example of a compound in which A is a thiazole and R₄ is a group other than CF₃; and (3) the Declaration by Dr. Ulrike Wachendorff-Neumann provides a showing that the compound in which the thiazole moiety bears a difluoromethyl substituent according to Applicant's claimed invention exhibits significantly enhanced activity compared to a thiazole compound of Walter et al.

Applicant's arguments have been considered but have not been found persuasive. Applicant argues that Walter et al. do not teach the particular combination of structural features that characterize Applicant's

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claimed invention nor do Walter et al. show even one specific example of a compound in which A is a thiazole and R₄ is a group other than CF₃. In response, it would appear that Applicant is arguing that if a rejection under 35 USC § 102 can not be made, than a rejection under 35 USC § 103 should not be made. However, this is not one of the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a). Additionally, it is well established that consideration of a reference is not limited to the preferred embodiments or working examples, but extends to the entire disclosure for what it fairly teaches, when viewed in light of the admitted knowledge in the art, to person of ordinary skill in the art. *In re Boe*, 148 USPQ 507, 510 (CCPA 1966). Further, the Declaration by Dr. Ulrike Wachendorff-Neumann was found insufficient for reasons stated above.

Applicant argues that: (1) Elbe et al. would not itself lead those skilled in the art to their claimed invention; (2) Elbe et al. taken with Walter et al. would not lead those skilled in the art any closer to the instant claimed invention than what is disclosed in Walter et al.; (3) the Declaration by Dr. Ulrike Wachendorff-Neumann provides support for Applicant's position with respect to Elbe et al. and Kanji et al.; and (4) Kanji et al. do not disclose compounds in which the amide nitrogen atom is substituted with a formyl group or any other acyl group specified by Applicant. All of Applicant's arguments have been considered but have not been found persuasive. It is disagreed that Elbe et al. would not lead one skilled in the art toward in the instant claimed invention. Note the structural similarities of Example 21 on page 32 of Elbe et al. compared to the structure of instant Example 2 found on page 39 of the instant specification. It is also disagreed that Elbe et al.

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taken with Walter et al. would not lead those skilled in the art to the instant claimed invention. Elbe et al. and Walter et al. teach the interchangeability of having a $-\text{CF}_3$ group and a $-\text{CHF}_2$ group at the 4-position of the thiazole ring and would direct one skilled in the art to having either of these groups. As stated previously, the Declaration by Dr. Ulrike Wachendorff-Neumann was found insufficient for reasons stated above. Applicant argues that Kanji et al. do not disclose compounds in which the amide nitrogen atom is substituted with a formyl group or any other acyl group specified by Applicant. In response, Kanji et al. do teach and disclose compounds which are substituted with an acyl group. See, for example, page 5 of 7 of the supplied partial translation of Kanji et al., under [Table 11], first compound wherein R1 is acetyl {i.e., $-\text{C}(=\text{O})\text{CH}_3$, which corresponds to the instant R^6 variable representing $-\text{COR}^7$ and R^7 representing a $\text{C}_1\text{-C}_8$ alkyl} and

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R3 is phenyl. The rejection is deemed proper and therefore, maintained.

Allowable Subject Matter

Claims 26 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the

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mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

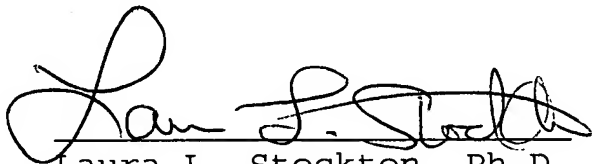
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura L. Stockton whose telephone number is (571) 272-0710. The examiner can normally be reached on Monday-Friday from 6:15 am to 2:45 pm. If the examiner is out of the Office, the examiner's supervisor, Joseph McKane, can be reached on (571) 272-0699.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

The Official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

A handwritten signature in black ink, appearing to read "Laura L. Stockton", is written over a horizontal line.

Laura L. Stockton, Ph.D.

Patent Examiner

Art Unit 1626, Group 1620

Technology Center 1600

May 7, 2007